

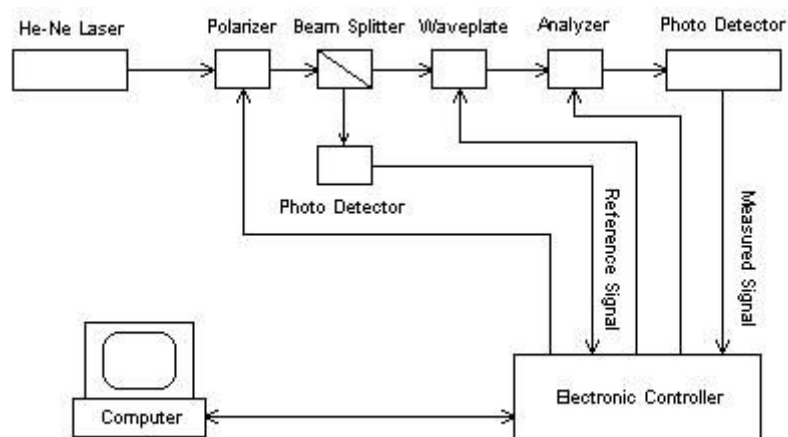
LEOI-40A Automatic Experimental System for Polarized Light



Description

LEOI-40A is an automatic system for conducting experiments in optical polarization. Students can conduct the following experiments using this system:

1. Measurement of Brewster's angle
2. Verification of Malus's law
3. Function study of a half-wave plate
4. Function study of a quarter-wave plate: circularly and elliptically polarized light



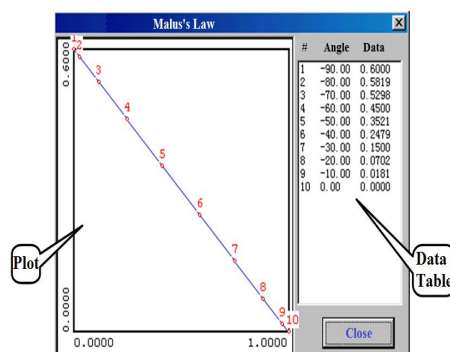
Schematic of System Configuration

Feature

Polarization by reflection, refraction, and dichroism

Verify Malus's law

Measure Brewster's angle



Display panel of software for the verification of Malus's law

Part list

Description	Specs/Part No.	Qty
He-Ne Laser	With Brewster window, >1.0 mW@632.8 nm	1
Optical Rail	Duralumin, length 1 m (LEPO-54-1)	1
Laser Holder		1
Carrier	z or x-y or x-y-z adjustable	5
Electronic Controller		1
Photoelectric Receiver		2
Glan-Taylor Prism		2
Beam Splitter	50:50	1
Condenser Lens	$f=100$ mm	1
$\lambda/2$ Wave Plate	Φ 10, $\lambda = 632.8$ nm, quartz	1
$\lambda/4$ Wave Plate	Φ 10, $\lambda = 632.8$ nm, quartz	1
2-D Adjustable Holder	LEPO-8	2
3-D Adjustable Holder	LEPO-7	2
Adaptor Piece	LEPO-10A	1
Adaptor Piece	LEPO-10D	1
Motorized Mount	Controlled by stepping motor, rotary	3
USB Cable		1



Software CD		1
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